MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2022/2023

PEM0024 - ESSENTIALS OF MICROECONOMICS

2ND OCTOBER 2023
9:00 A.M. – 11:00 A.M.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 10 pages excluding the cover page.
2. This question paper is divided into two parts. Part I consists of 40 multiple choice questions and Part II consists of 3 structured questions. Attempt **ALL** questions.
3. Selected formulae are attached at the end of the questions.
4. Please use **pen** to write the answers.
5. Please print all your answers for Part I in the **OMR Sheet** and Part II in the **Answer Booklet** provided.

PART I: MULTIPLE-CHOICE QUESTIONS (TOTAL: 40 MARKS)

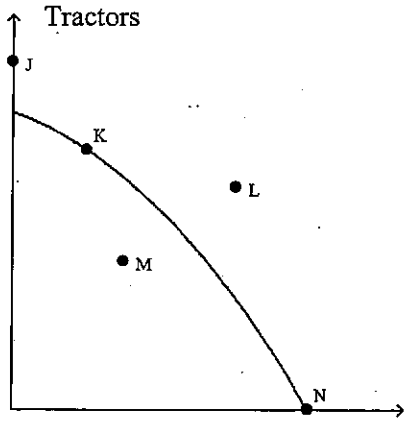

Figure 1

1. Refer to **Figure 1** above. This economy has the ability to produce at which point(s)?
   a. J, K, M, N
   b. K, M, N
   c. M, N
   d. M

2. Refer to **Figure 1** above. Unemployment could cause this economy to produce at which point(s)?
   a. J, K, M, N
   b. K, M, N
   c. M, N
   d. M

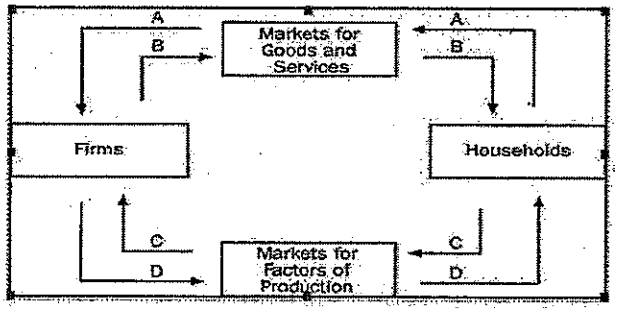

Figure 2

3. Refer to **Figure 2** above. Which arrow(s) reflects the salary that Raju received at the end of the month?
   a. A, B, C, D
   b. B, C, D
   c. C, D
   d. D

Continued..

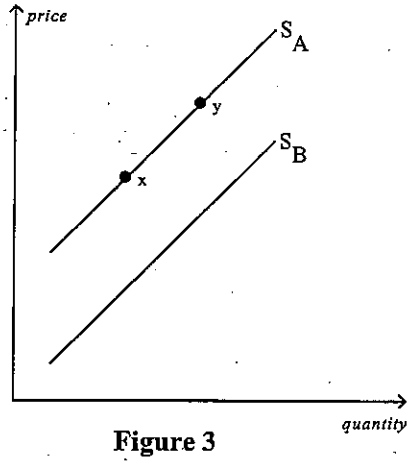

Figure 3

4. Refer to **Figure 3** above that shows the supply of printers. All else equal, an increase in the price of the ink cartridges for printers would cause a move _____
   a. from x to y.
   b. from y to x.
   c. from S_A to S_B.
   d. from S_B to S_A.

5. Refer to **Figure 3** above that shows the supply of printers. All else equal, a major printer company being shut down for tax evasion would cause a move _____
   a. from x to y.
   b. from y to x.
   c. from S_A to S_B.
   d. from S_B to S_A.

6. The art in scientific thinking -- whether in chemistry, economics, or biology -- is _____
   a. the design and implementation of laboratory experiments.
   b. knowing when to stop collecting data and when to start analyzing the data.
   c. deciding which assumptions to make.
   d. being able to mathematically model natural phenomena.

7. A production possibilities frontier shifts outward when _____
   a. the economy experiences economic growth.
   b. the desires of the economy's citizens change.
   c. at least one of the basic principles of economics is violated.
   d. opportunity costs are lessened.

8. Which of the following is not a reason for the existence of a monopoly?
   a. patents
   b. copyrights
   c. diseconomies of scale
   d. sole ownership of a key resource

Continued..

9. If the price of a substitute to good A increases, then _____
   a. the demand for good A will increase.
   b. the market price of good A will decrease.
   c. the demand for good A will decrease.
   d. the demand for good A will not change.

10. The simplest type of oligopoly is _____
   a. monopoly.
   b. duopoly.
   c. monopolistic competition.
   d. oligopolistic competition.

11. For a demand curve to be more elastic _____.
   a. the item must be a necessity.
   b. there should be an availability of substitutes.
   c. there should be insufficient time to adjust to price changes.
   d. the item should represent a small portion of an individual's total budget.

12. What will happen in the egg market if buyers are expecting higher prices in the near future?
   a. The demand for egg will increase.
   b. The demand for egg will decrease.
   c. The demand for egg will be unaffected.
   d. The supply of egg will increase.

13. Holding all else constant, a higher price for futsal court rental fee would be expected to _____
   a. increase the number of futsal players.
   b. decrease demand for futsal sport activities.
   c. decrease the demand for other recreational activities.
   d. decrease the supply of futsal court facilities.

14. The fundamental source of monopoly power is _____
   a. barriers to entry.
   b. profit.
   c. decreasing average total cost.
   d. a product without close substitutes.

15. Which of the following statements is correct?
   a. Both a competitive firm and a monopolist are price takers.
   b. Both a competitive firm and a monopolist are price makers.
   c. A competitive firm is a price taker, whereas a monopolist is a price maker.
   d. A competitive firm is a price maker, whereas a monopolist is a price taker.

Continued..

16. A firm that is the sole seller of a product without close substitutes is _____
    a. perfectly competitive.
    b. monopolistically competitive.
    c. an oligopolist.
    d. a monopolist.

17. Because the monopolistically competitive firm faces a _____ demand curve for its product, it _____ the price of its output.
    a. downward-sloping; cannot influence
    b. horizontal; can influence
    c. horizontal; cannot influence
    d. downward-sloping; can influence

18. Suppose that there is an increase in input prices. We would expect _____
    a. supply to increase.
    b. supply to decrease.
    c. supply could increase or decrease.
    d. supply to remain unchanged

19. When the price is higher than the equilibrium price,
    a. a shortage will exist.
    b. quantity demanded equals quantity supplied.
    c. buyers desire to purchase more than is produced.
    d. sellers desire to produce and sell more than buyers wish to purchase.

20. An increase in income will cause a consumer's budget constraint to _____
    a. shift outward, parallel to its initial position.
    b. shift inward, parallel to its initial position.
    c. pivot around the horizontal axis.
    d. pivot around the vertical axis.

21. What is the difference between perfect competition and monopolistic competition?
    a. Perfect competition has a large number of small firms while monopolistic competition does not.
    b. In perfect competition, firms produce identical goods, while in monopolistic competition, firms produce slightly different goods.
    c. Perfect competition has no barriers to entry, while monopolistic competition does.
    d. Perfect competition has barriers to entry while monopolistic competition does not.

22. Accounting profit is equal to _____
    a. marginal revenue minus marginal cost.
    b. total revenue minus the explicit cost of producing goods and services.
    c. total revenue minus the opportunity cost of producing goods and services.
    d. average revenue minus the average cost of producing the last unit of a good or service.

Continued..

23. Other things equal, when the price of a good rises, the quantity supplied of the good also rises. This is _____
    a. the law of supply.
    b. the law of demand.
    c. the law of increasing costs.
    d. the law of diminishing returns.

24. Game theory is important for the understanding of _____
    a. competitive markets.
    b. monopolies.
    c. oligopolies.
    d. all market structures.

25. Which of the following is a determinant of demand?
    a. the price of a substitute good
    b. the price of a complement good
    c. the price of the good next month
    d. all of the above

26. In the short run, a monopolist's profits:
    a. may be positive, negative, or zero.
    b. are positive because of the monopolist's market power.
    c. are positive if the monopolist's elasticity of demand is less than 1.
    d. are positive if the monopolist's selling price is above average variable cost.

27. Which of the following statements is correct?
    a. Opportunity costs equal explicit minus implicit costs.
    b. Economists consider opportunity costs to be included in a firm's total revenues.
    c. Economists consider opportunity costs to be included in a firm's costs of production.
    d. All of the above are correct.

28. For any competitive market, the supply curve is closely related to the _____
    a. preferences of consumers who purchase products in that market.
    b. income tax rates of consumers in that market.
    c. firms' costs of production in that market.
    d. interest rates on government bonds.

29. Because monopoly firms do not have to compete with other firms, the outcome in a market with a monopoly is often _____
    a. not in the best interest of society.
    b. one that fails to maximize total economic well-being.
    c. inefficient.
    d. All of the above are correct.

Continued..

30. The downward-sloping demand curve reflects which of the following?
    a. The price is positively related to quantity supplied.
    b. There is an inverse relationship between price and quantity demanded.
    c. There is a direct relationship between price and quantity demanded.
    d. When the price falls, buyers willingly buy less.

31. When adding another unit of labor leads to an increase in output that is smaller than the increases in output that resulted from adding previous units of labor, the firm is experiencing _____
    a. diminishing labor.
    b. diminishing output.
    c. diminishing marginal product.
    d. negative marginal product.

32. Sugar cane is the main input in the production of sugar. If the price of sugar cane increases, all else equal, we would expect _____
    a. the supply of sugar to be unaffected.
    b. the supply of sugar to decrease.
    c. the supply of sugar to increase.
    d. the demand for sugar to decrease.

33. Moving along an indifference curve the:
    a. Consumers prefer some of the consumption points to others.
    b. Marginal rate of substitution for a good increase as more of the good is consumed.
    c. Marginal rate of substitution is constant.
    d. Consumers do not prefer one consumption point to another.

34. Monopolies use their market power to _____
    a. charge prices that equal minimum average total cost.
    b. increase the quantity sold as they increase price.
    c. charge a price that is higher than marginal cost.
    d. dump excess supplies of their product on the market.

35. In the indifference map, a lower indifference curve indicates which of the following?
    a. Lower level of satisfaction
    b. Higher level of satisfaction
    c. Same level of satisfaction
    d. Either higher or same level of satisfaction

36. Which of the following is the best example of a perfectly competitive market?
    a. diamonds
    b. athletic shoes
    c. soft drinks
    d. tomatoes

Continued..

37. Which of the following is an example of an implicit cost?
    a. salaries paid to owners who work for the firm
    b. interest on money borrowed to finance equipment purchases
    c. cash payments for raw materials
    d. foregone rent on office space owned and used by the firm

38. Economic profit is equal to _____
    a. total revenue minus the explicit cost of producing goods and services.
    b. total revenue minus the opportunity cost of producing goods and services.
    c. total revenue minus the accounting cost of producing goods and services.
    d. average revenue minus the average cost of producing the last unit of a good or service.

39. What is the profit-maximizing rule for a monopolistically competitive firm?
    a. to produce a quantity that maximizes market share
    b. to produce a quantity that maximizes total revenue
    c. to produce a quantity such that marginal revenue equals marginal cost
    d. to produce a quantity such that price equals marginal cost

40. Oligopolies exist and do not attract new rivals because _____
    a. of competition.
    b. of barriers to entry.
    c. there can be no product differentiation.
    d. the firms keep profits and prices so low that no rivals are attracted.

PART II: THREE STRUCTURED QUESTIONS (TOTAL: 60 MARKS)

Question 1

Below is the cost of production for a factory of flour and its output per number of worker.

Number of Workers	Output (kg)	Fixed Cost (RM)	Variable Cost (RM)
0	0	50	0
1	90	50	20
2	170	50	40
3	230	50	60
4	240	50	80

a. Find the marginal product and marginal cost of production. (8 marks)
b. Explain the relationship between marginal product and marginal cost of production. (3 marks)
c. If the firm can sell its output for RM1 per unit, find the profit for each level of output. For the given price, state the profit-maximizing level of output. (5 marks)
d. If the firm can sell its output for RM2 per unit, find the profit-maximizing level of output. Indicate the change in the profit compared to the profit earned in part (c). (4 marks)

(Total: 20 marks)

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Question 2

Assume that in a perfectly competitive market consists of 2,000 firms of which 600 are medium-size firms and the remaining are small-size firms. The marginal cost schedules of the two types of firms are given in the table below.

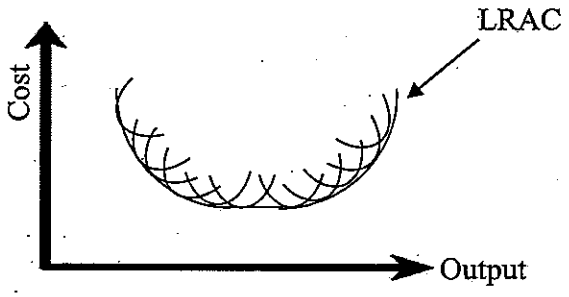
Monthly Output (unit)	Marginal Cost (RM)	
	Medium Size Firms	Small Size Firms
1	4	3
2	3	2
3	4	3
4	5	4
5	7	5
6	10	7
7	15	10
8	23	15
9	40	23

If the minimum average variable cost (AVC) is RM4.50 for the medium-sized firms and RM3.50 for the small-sized firm, answer the following questions.

a. Find the short-run industry supply of outputs per month be at each of the following prices. (8 marks)
   - RM23
   - RM10
   - RM4
   - RM2

b. Describe the advantages and disadvantages for sellers in a competitive market. (6 marks)

c. Suppose that long-run average total cost of one medium-size firm are represented in the diagram below. Describe the section in the diagram when the firm is experiencing constant return to scale, diseconomies of scale or economies of scale. (6 marks)



(Total: 20 marks)

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Question 3

A monopolist faces the following demand schedule for the upcoming charity selling customized t-shirts designed by a popular designer, Melinda Looi.

Price (RM)	Quantity Demanded (unit)	Total Revenue (RM)	Marginal Revenue (MR)	Total Cost (RM)
100	0		--	2,000
90	100	9,000	90	
80	200	16,000	70	4,000
70	300		50	5,000
60	400	24,000		
50	500		10	7,000
40	600			
30	700			
20	800	16,000	-50	10,000
10	900	9,000	-70	11,000

The designer is paid RM2,000 to design the t-shirt and the marginal cost of printing the t-shirt is a constant RM10 per t-shirt.

a) Find the missing values of the total revenue, marginal revenue and total cost in the table above. (6 marks)
b) Find the profit at each quantity level. Identify the profit-maximizing output level and price that the firm would choose. (5 marks)
c) Illustrate with a graph showing the marginal-revenue, marginal-cost, and demand curves. At what quantity do the marginal revenue and marginal-cost curves cross? Is it more profitable to decrease or increase the printing the t-shirts? (6 marks)
d) In your graph drawn in part (c), shade the deadweight loss area. Explain the term deadweight loss. (3 marks)

(Total: 20 marks)

End of questions

SELECTED FORMULAE

Total Cost = Total Fixed Cost + Total Variable Cost

Average Total Cost = Total Cost / Number of Outputs

Average Fixed Cost = Total Fixed Cost / Number of Outputs

Total Variable Cost = Total Variable Cost / Number of Outputs

Marginal Cost = Change in Total Cost / Change in Outputs

Marginal Product = Change in Total Products / Change in Input

Average Product = Total Products / Number of Input

Total Revenue = Price × Quantity

Marginal Revenue = Change in Total Revenue / Change in Outputs

End of paper